

SHARP®

LCD PROJECTOR
LCD-PROJEKTOR
PROJECTEUR LCD
VIDEOPROJEKTOR

PROYECTOR DE LCD
PROIETTORE LCD
LCD-PROJEKTOR

OPERATION MANUAL
BEDIENUNGSANLEITUNG
MODE D'EMPLOI
BRUKSANVISNING
MANUAL DE MANEJO
MANUALE DI ISTRUZIONI
GEBRUIKSAANWIJZING

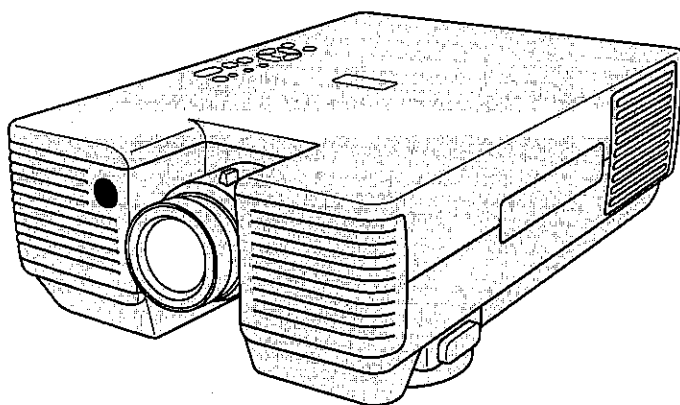
Model
Modell
Modèle
Modell

Modelo
Modello
Model

XV-Z1E

- ENGLISH
- DEUTSCH
- FRANÇAIS
- SVENSKA
- ESPAÑOL
- ITALIANO
- NEDERLANDS

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This equipment complies with the requirements of Directives 89/336/EEC and 73/23/EEC as amended by 93/68/EEC.

Dieses Gerät entspricht den Anforderungen der EG-Richtlinien 89/336/EWG und 73/23/EWG mit Änderung 93/68/EWG.

Ce matériel répond aux exigences contenues dans les directives 89/336/CEE et 73/23/CEE modifiées par la directive 93/68/CEE.

Dit apparaat voldoet aan de eisen van de richtlijnen 89/336/EEG en 73/23/EEG, gewijzigd door 93/68/EEG.

Dette udstyr overholder kravene i direktiv nr. 89/336/EEC og 73/23/EEC med tillæg nr. 93/68/EEC.

Quest' apparecchio è conforme ai requisiti delle direttive 89/336/EEC e 73/23/EEC, come emendata dalla direttiva 93/68/EEC.

Η εγκατάσταση αυτή ανταποκρίνεται στις απαιτήσεις των οδηγιών της Ευρωπαϊκής Ένωσης 89/336/ΕΟΚ και 73/23/ΕΟΚ, όπως οι κανονισμοί αυτοί συμπληρώθηκαν από την οδηγία 93/68/ΕΟΚ.

Este equipamento obedece às exigências das directivas 89/336/CEE e 73/23/CEE, na sua versão corrigida pela directiva 93/68/CEE.

Este aparato satisface las exigencias de las Directivas 89/336/CEE y 73/23/CEE, modificadas por medio de la 93/68/CEE.

Denna utrustning uppfyller kraven enligt riktlinjerna 89/336/EEC och 73/23/EEC så som kompletteras av 93/68/EEC.

Dette produktet oppfyller betingelsene i direktivene 89/336/EEC og 73/23/EEC i endringen 93/68/EEC.

Tämä laite täyttää direktiivien 89/336/EEC ja 73/23/EEC vaatimukset, joita on muutettu direktiivillä 93/68/EEC.

Dear SHARP Customer

Welcome to the SHARP Family. We are pleased that you are now the owner of a SHARP Colour LCD Projector built for outstanding quality, reliability and performance.

Every SHARP Colour LCD Projector is adjusted for a proper picture and has passed through the most stringent quality control tests at the factory. We have prepared this OPERATION MANUAL so that you have the ability to adjust the picture and colour to your personal viewing preference. We sincerely hope that you will be delighted with the quality and performance of your Colour LCD Projector for many years to come.

Please read the instructions carefully, and keep them handy for future reference.

IMPORTANT

For your assistance in reporting the loss or theft of your Colour LCD Projector, please record the Serial Number located on the bottom of the projector and retain this information.

The model number, power rating, and warnings are displayed on the bottom of the unit.

Model No.: XV-Z1E

Serial No.:

Before disposing of the packaging, please be sure that you have checked the contents of the carton thoroughly against the "Supplied accessories" listed in the operation manual on page 23.

Important Information

WARNING:

INTENSE LIGHT SOURCE, DO NOT LOOK INTO THE BEAM OR VIEW IT DIRECTLY. BE ESPECIALLY CAREFUL THAT CHILDREN DO NOT LOOK DIRECTLY INTO THE BEAM.

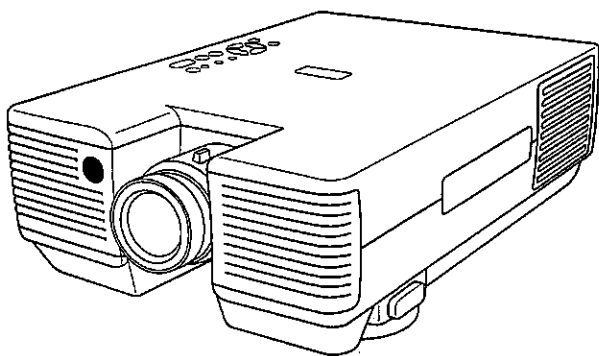
WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO LIQUIDS.

CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE CABINET. NO USER-SERVICEABLE PARTS ARE INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Outstanding Features



- (1) SRS, the SRS symbol "●" and "Sound Retrieval System" are registered trademarks of SRS Labs, Inc. in the U.S. and selected countries.
- (2) "Sound Retrieval System" (SRS) technology is manufactured under license from SRS Labs, Inc.
- (3) "Sound Retrieval System" (SRS) technology is protected by USA patents 4,748,669 and 4,841,572 and additional patents worldwide.

Allows easy projection of large screen, full-colour video images.

- Can be projected directly onto a video screen or white wall.
- Lightweight, convergence-free system for easy installation.

FLEXIBLE USE

- In addition to the standard front projection mode, the menu driven functions can be used to instantly reverse the image for rear projection, and invert the image for ceiling mounting.
- Screen projection size adjusts from 102 cm (40 inches) to 762 cm (300 inches).

HIGH PICTURE QUALITY

Each of the three LCD panels contains 311,696 pixels to achieve exceptionally bright, high quality video images with up to 480 TV lines of resolution.

Y/C DIGITAL COMB FILTER

Provides high quality video images with minimal dot crawl and cross colour noise.

ANALOG COMPONENT VIDEO INPUT

Utilizes a colour-difference signal (Y, C_b (B-Y), C_r (R-Y)). The video signal is input as separate components to provide superior colour and image quality.

BUILT-IN SPEAKERS WITH SRS (Sound Retrieval System) CIRCUITRY

Built-in 3 W + 3 W stereo amplifiers and speakers feature SRS circuitry for impressive SRS 3-D sound.

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SPECIAL NOTE FOR USERS IN THE U.K.

The mains lead of this product is fitted with a non-rewireable (moulded) plug incorporating a 13A fuse. Should the fuse need to be replaced, a BSI or ASTA approved BS 1362 fuse marked  or  and of the same rating as above, which is also indicated on the pin face of the plug, must be used.

Always refit the fuse cover after replacing the fuse. Never use the plug without the fuse cover fitted. In the unlikely event of the socket outlet in your home not being compatible with the plug supplied, cut off the mains plug and fit an appropriate type.

DANGER: The fuse from the cut-off plug should be removed and the cut-off plug destroyed immediately and disposed of in a safe manner.

Under no circumstances should the cut-off plug be inserted elsewhere into a 13A socket outlet, as a serious electric shock may occur.

To fit an appropriate plug to the mains lead, follow the instructions below:

IMPORTANT: The wires in the mains lead are coloured in accordance with the following code:

Blue : Neutral

Brown : Live

As the colours of the wires in the mains lead of this product may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- The wire which is coloured blue must be connected to the plug terminal which is marked N or coloured black.
- The wire which is coloured brown must be connected to the plug terminal which is marked L or coloured red.

Ensure that neither the brown nor the blue wire is connected to the earth terminal in your three-pin plug.

Before replacing the plug cover make sure that:

- If the new fitted plug contains a fuse, its value is the same as that removed from the cut-off plug.
- The cord grip is clamped over the sheath of the mains lead, and not simply over the lead wires.

IF YOU HAVE ANY DOUBT, CONSULT A QUALIFIED ELECTRICIAN.

Important Safeguards

ATTENTION: Please read all of these instructions before you operate your LCD Projector for the first time. Save these instructions for future reference.

For your own protection and prolonged operation of your LCD Projector, be sure to read the following "Important Safeguards" carefully, before use.

This projector has been engineered and manufactured to ensure your personal safety. But **IMPROPER USE CAN RESULT IN POTENTIAL ELECTRICAL SHOCK OR FIRE HAZARDS**. In order not to defeat the safeguards incorporated into this LCD Projector, observe the following basic rules for its installation, use and servicing.

1. Unplug the LCD Projector from the wall outlet before cleaning.
2. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
3. Do not use attachments not recommended by the LCD Projector manufacturer, as they may cause hazards.
4. Do not use the LCD Projector near water; for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, near a swimming pool, etc. Never spill liquid into the projector.
5. Do not place the LCD Projector on an unstable cart, stand, or table. The LCD Projector may fall, which may cause serious injury to a child or an adult, and/or serious damage to the unit.
6. Wall or Ceiling Mounting — The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

7. LCD Projector equipment and cart combinations should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the equipment and cart combination to overturn.



8. Slots and openings in the cabinet back and bottom are provided for ventilation. To ensure reliable operation of the LCD Projector and to protect it from overheating, these openings must not be blocked or covered. The openings should never be covered with cloth or other material.

9. This LCD Projector should never be placed near or over a radiator or heating vent. The LCD Projector should not be placed in a built-in installation such as a bookcase unless proper ventilation is provided.

10. The LCD Projector should be operated only from the type of power source indicated on the back of the projector or in the specifications. If you are not sure of the type of power supplied to your home, consult your LCD Projector dealer or local power company.

11. Do not place the LCD Projector where the cord will be abused by persons walking on it.

12. Follow all warnings and instructions marked on the LCD Projector.

13. To prevent damage to the projector due to lightning and power-line surges, unplug the projector from the power outlet, when not in use.

14. Do not overload wall outlets and extension cords with too many products, because this can result in fire or electric shock.

15. Never push objects of any kind into the LCD Projector through the cabinet slots as they may touch high-voltage points or cause a short circuit. This could result in a fire or electric shock.

16. Do not attempt to service the LCD Projector yourself. Opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

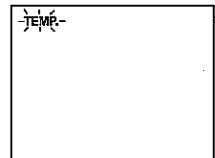
17. Unplug the LCD Projector equipment from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- A. When the power cord or plug is damaged or frayed.
- B. If liquid has been spilled into the LCD Projector.
- C. If the LCD Projector has been exposed to rain or water.
- D. If the LCD Projector does not operate normally when you follow the operating instructions. Adjust only those controls that are covered by the operating instructions, as improper adjustment of other controls may cause damage and will often require extensive work by a qualified technician to restore the LCD Projector to normal operation.
- E. If the LCD Projector has been dropped or the cabinet has been damaged.
- F. When the LCD Projector exhibits a distinct change in performance — this indicates a need for service.

18. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original parts. Unauthorised substitutions may result in fire, electric shock, or other hazards.

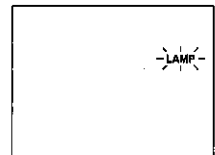
About the Temperature Monitor Function:

- If the projector starts to overheat due to set-up problems or a dirty air filter, "TEMP." will flash in the upper-left corner of the picture. If the temperature continues to rise, then the lamp will turn off, the TEMPERATURE WARNING indicator will flash, and after a 90-second cooling-off period the power will shut off. Refer to page 22, "Maintenance Indicators", when the "TEMP." warning appears in the picture.
- The cooling fan regulates the internal temperature, and its performance is automatically controlled. The sound of the fan may change during operation due to changes in the fan speed.



About the Lamp Monitor Function:

- When the projector is turned on after the lamp has been in use for more than 1,900 hours, the yellow "LAMP" display will flash on the screen for 60 seconds, as shown on the right. This is to alert you that it is time to replace the lamp. At this point, take your projector to the nearest Sharp Authorised LCD Projector Dealer or Service Centre to have the lamp replaced.
- If the lamp is used for more than 2,000 hours, the projector power will automatically turn off, and the projector will enter STANDBY mode.
- Refer to page 22, "Maintenance Indicators", when the "LAMP" display warning appears.

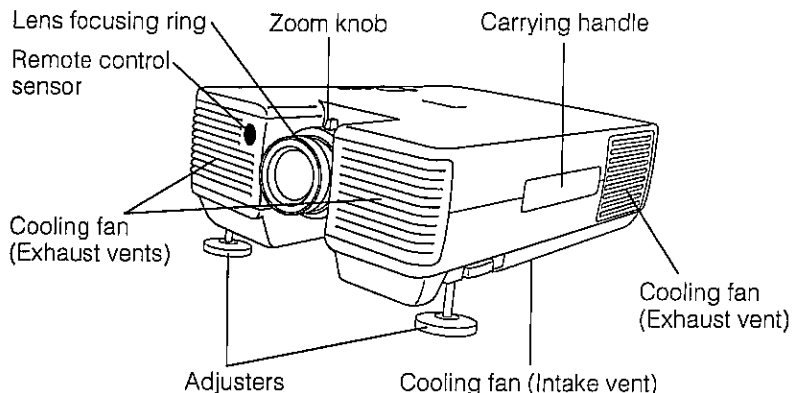


Caution:

If "LAMP" begins to flash on the screen, be sure to take your projector to the nearest Sharp Authorised LCD Projector Dealer or Service Centre to have the lamp replaced.

Location of Controls

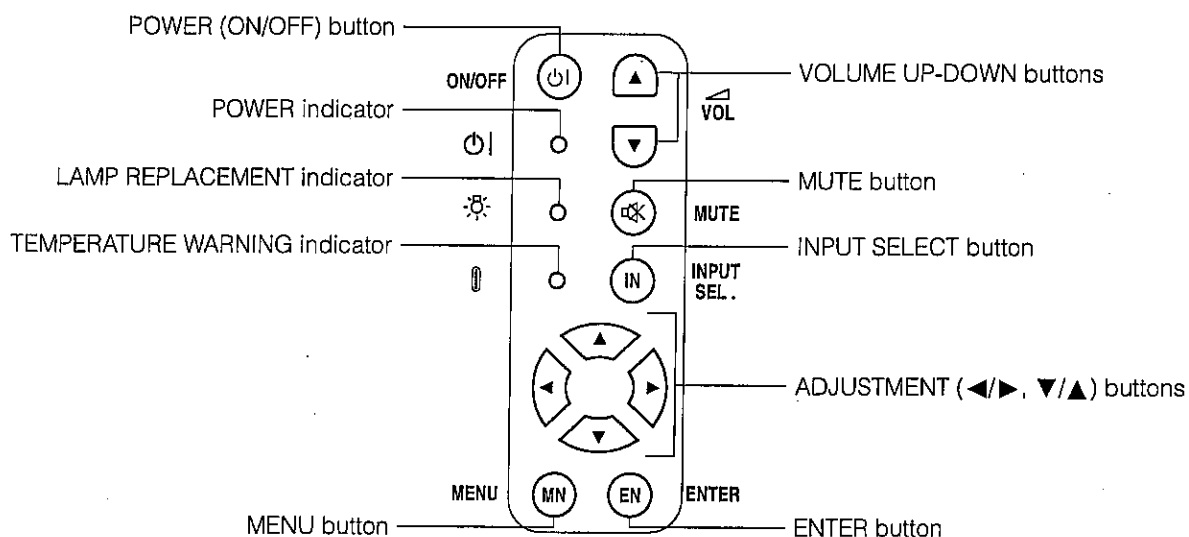
FRONT VIEW



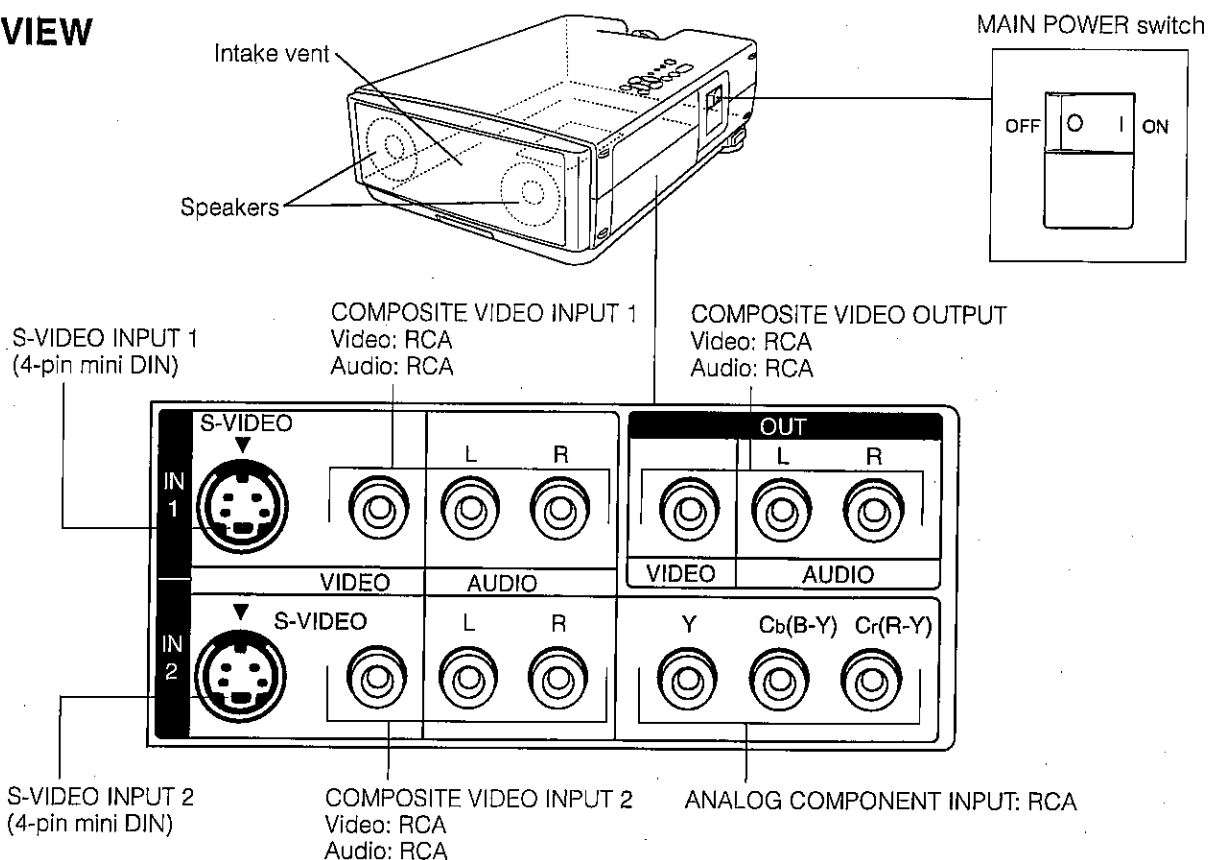
Cautions:

- The exhaust vent, the lamp cage cover and adjacent areas may be extremely hot during projector operation. To prevent injury, do not touch these areas until they have sufficiently cooled.
- Allow at least 10 cm of space between the cooling fan (exhaust vent) and the wall.
- If the cooling fan becomes obstructed, a protection device will automatically turn off the projector lamp. This does not indicate a malfunction. Remove the projector plug from the wall socket and wait 10 minutes. Then turn on the power by plugging the cord back in. This will return the projector to its normal mode.

OPERATION PANEL ON TOP OF PROJECTOR

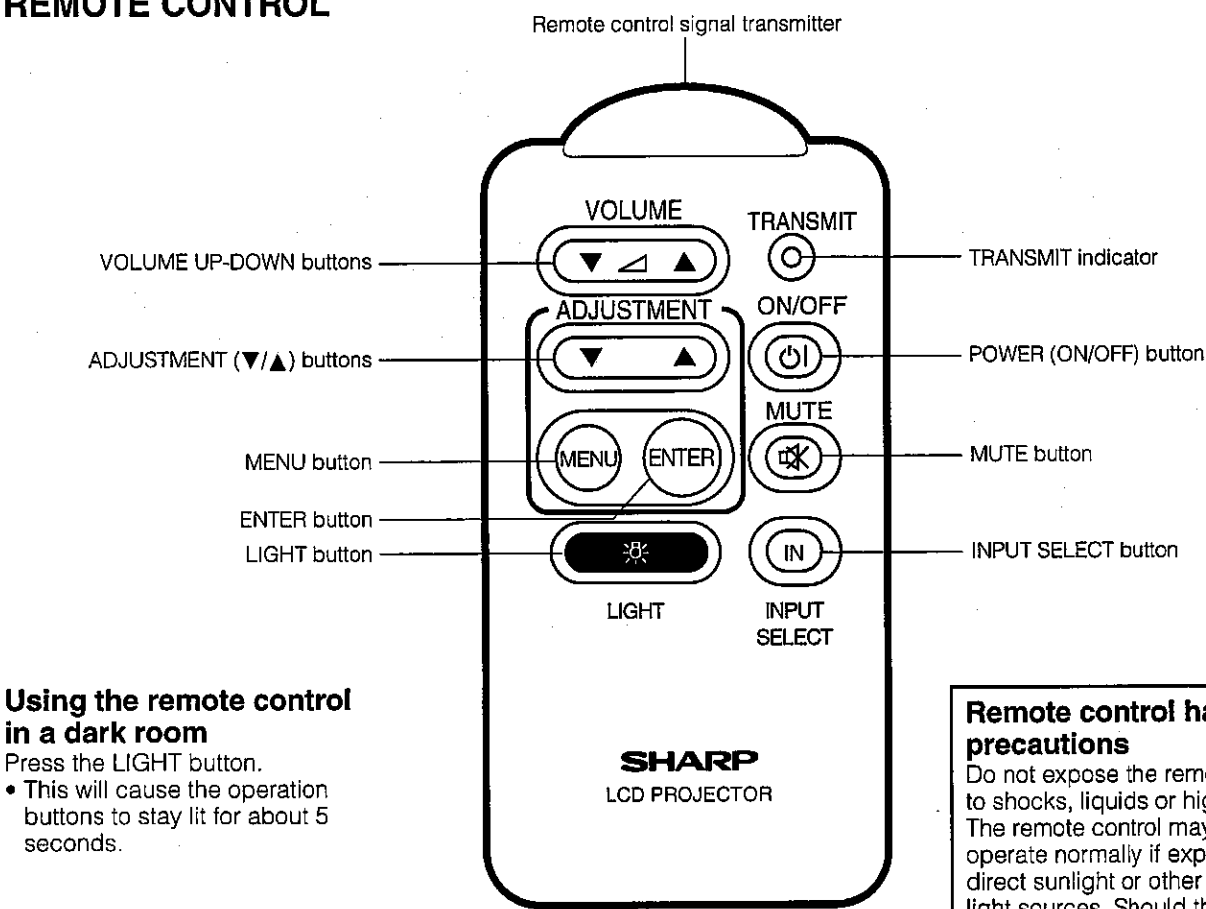


REAR VIEW



Remote Control Operation

REMOTE CONTROL



Using the remote control in a dark room

- Press the LIGHT button.
- This will cause the operation buttons to stay lit for about 5 seconds.

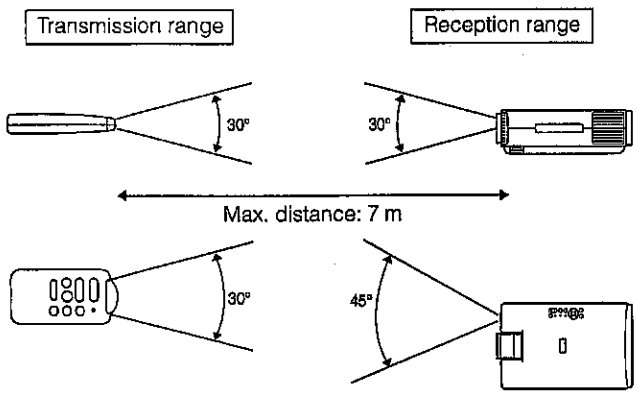
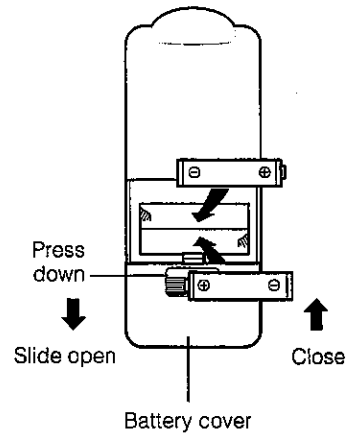
Remote control handling precautions

Do not expose the remote control to shocks, liquids or high humidity. The remote control may not operate normally if exposed to direct sunlight or other intense light sources. Should this happen, reposition the light source or the LCD Projector.

Inserting the batteries

Remove the battery cover as shown and insert two AAA size batteries making sure the polarity matches the (+) and (–) marks inside the battery compartment.

- Notes:**
- Incorrect use of batteries may cause them to leak or burst.
 - Insert the batteries with the (+) and (–) polarities as indicated.
 - Remove the batteries if the remote control will not be operated for an extended period of time.
 - Maintain the batteries in clean condition.
 - Do not mix different brands of batteries. The life expectancy of the new batteries will be shortened and the old batteries may leak.
 - When the batteries have been used up, remove them immediately to prevent leakage and damage. Leaked battery fluid may irritate the skin. Remove any battery fluid by wiping with a cloth.
 - Due to storage conditions and the shelf life of the supplied batteries, they may run out after a short time. Replace them with new batteries as soon as possible.



Remote control positioning

Use the remote control as shown in the figures on the left.

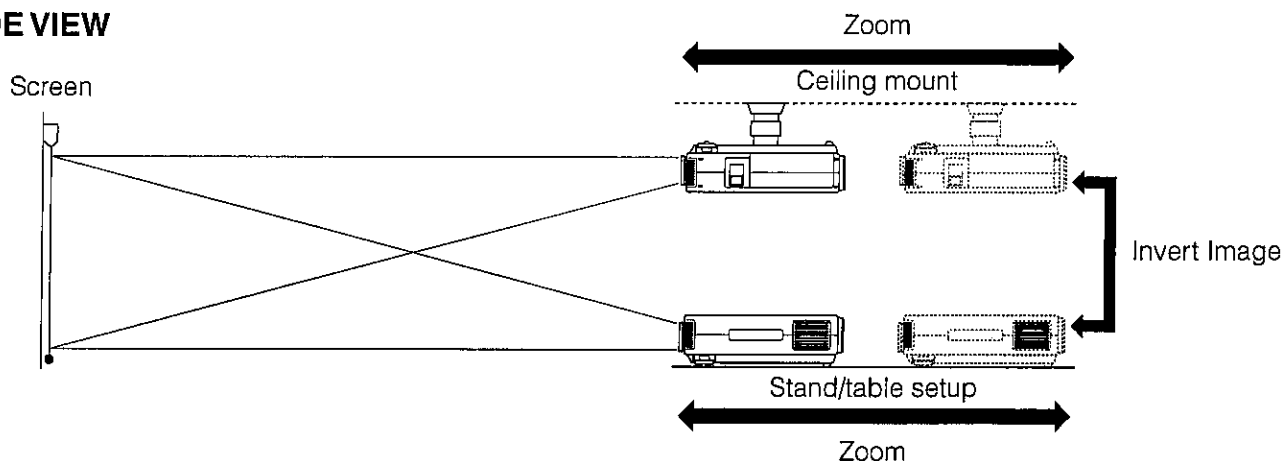
- Note:**
- The signal from the remote control can be reflected off the screen for easy operation. However, the effective distance of the signal may differ due to the screen material.

Setting Up the Projector

Using the Focus and Zoom

- Zoom, Focus and Reversed/Inverted Image mode functions broaden your options for projector placement.
- See pages 7, 9 and 10 for details on projector setup.

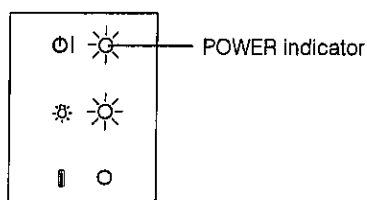
SIDE VIEW



1. Turning on the MAIN POWER

Press the MAIN POWER switch ON.

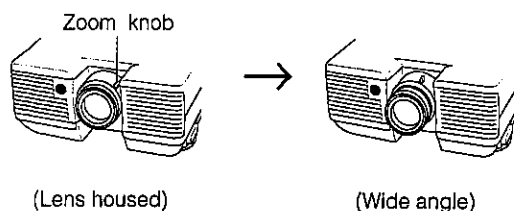
2



2. Turning on the POWER

Press the POWER (ON/OFF) button on the projector or the remote control to turn on the power.

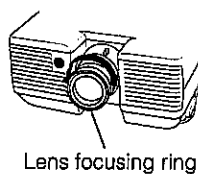
3



3. Rotating the zoom knob (from the housed position to the wide angle position)

Rotate the zoom knob on the lens to the left until it clicks. The picture can be adjusted within the zoom range.

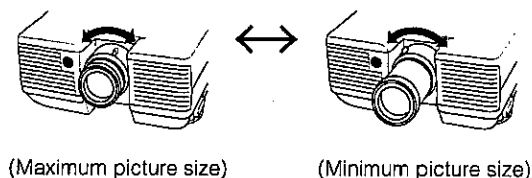
4



4. Adjusting the focus

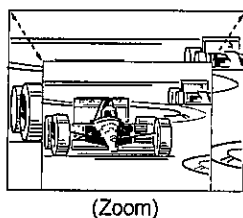
Rotate the lens focusing ring until the top portion of the screen is in focus.

5



5. Adjusting the zoom

Rotate the zoom knob. The picture can be adjusted to the desired size within the zoom range.

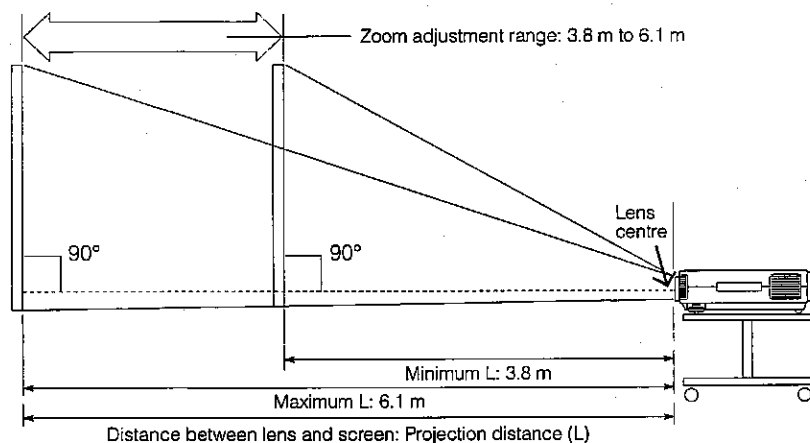


Projector Distance and Picture Size Relationship

- The zoom lens allows adjustment of the image size within the projector's range.
- For optimum picture adjustment, the projector should be placed and adjusted at a distance between 1.5 m and 18.5 m from the screen.

Distance from screen

Example picture size: 254 cm (100 inches)

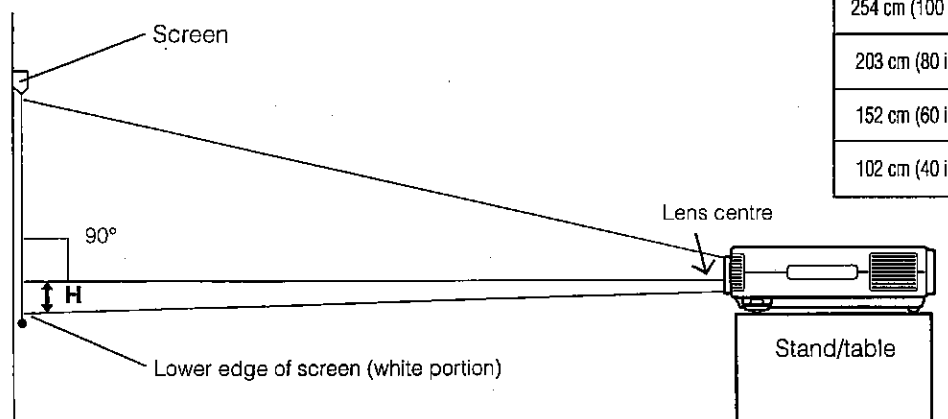


Picture size (diag.)	Projection distance (L)	
	Maximum projection distance	Minimum projection distance
762 cm (300 inches)	18.5 m	11.5 m
381 cm (150 inches)	9.2 m	5.7 m
254 cm (100 inches)	6.1 m	3.8 m
203 cm (80 inches)	4.9 m	3.0 m
152 cm (60 inches)	3.6 m	2.2 m
102 cm (40 inches)	2.4 m	1.5 m

- Above is an illustration of maximum and minimum projection distances for the XV-Z1E with a picture size of 254 cm (100 inches). Move the projector forward or back if the edges of the image are distorted.

Height of Projector

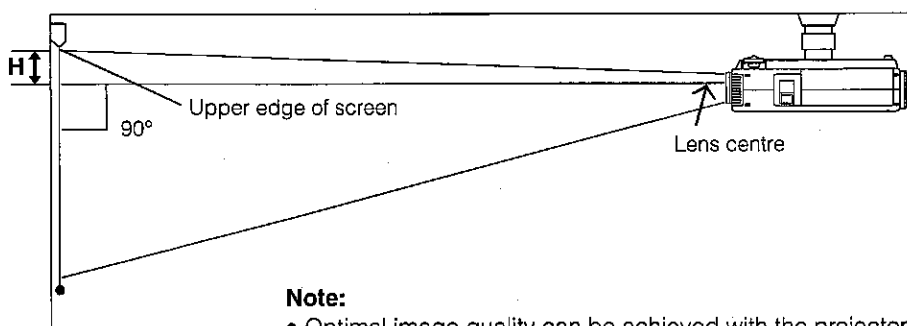
- Adjust to match the setup configuration.



Picture size (diag.)	Distance from lens centre to lower edge of screen (H)
762 cm (300 inches)	57 cm
381 cm (150 inches)	29 cm
254 cm (100 inches)	19 cm
203 cm (80 inches)	15 cm
152 cm (60 inches)	11 cm
102 cm (40 inches)	8 cm

Ceiling Mount

When the projector is in the inverted position, use the upper edge of the screen as the base line.



Note:

- Optimal image quality can be achieved with the projector positioned perpendicular to the screen with all feet flat and level.

Using the Image Invert/Reverse Function

- This projector is equipped with an image invert/reverse function. The projected image can be inverted or reversed by using the MENU button, ENTER button and the ADJUSTMENT buttons.

1 On-Screen Display

```
IMAGE ADJ.  
>BLUE SCREEN (ON)  
OFF TIMER (OFF)  
REVERSE (OFF)  
INVERT (OFF)  
LANPUSAGE  
  
[▼▲]SEL. [ENTER]NEXT  
[MENU]END
```

2

```
ONE[MENU]END  
[▼▲<▶]SEL. [ENTER]BACK  
  
INVERT (ON)
```

3

```
REVERSE (ON)  
  
[▼▲<▶]SEL. [ENTER]BACK  
TWO[MENU]END
```

4

```
[▼▲<▶]SEL. [ENTER]BACK  
THREE[MENU]END  
  
REVERSE (ON)
```

1. Press the MENU button.

With the MENU screen displayed, press the ADJUSTMENT ▼/▲ buttons to select "IMAGE ADJ." Then press the ENTER button to display the IMAGE ADJ. setting screen.

- The last MENU screen selected is indicated for about 30 seconds.

2. Inverted Image Mode

With the IMAGE ADJ. setting screen displayed, press the ADJUSTMENT ▼/▲ buttons to select "INVERT". Then press the ENTER button. When the INVERT setting screen appears, press the ADJUSTMENT ▼/▲ buttons on the remote control or the ADJUSTMENT ◀/▶, ▼/▲ buttons on the projector to select ON. The inverted image will appear.

3. Reversed Image Mode

With the invert function OFF and the IMAGE ADJ. screen displayed, press the ADJUSTMENT ▼/▲ buttons to select "REVERSE". Then press the ENTER button. When the REVERSE setting screen appears, press the ADJUSTMENT ▼/▲ buttons on the remote control or the ADJUSTMENT ◀/▶, ▼/▲ buttons on the projector to select ON. The reversed image will appear.

4. Reversed Inverted Image Mode

Follow the above steps and set the invert and reverse functions to ON. The reversed inverted image will appear.

5. Press the MENU button anytime to exit.

How to Set up the Projector and Screen

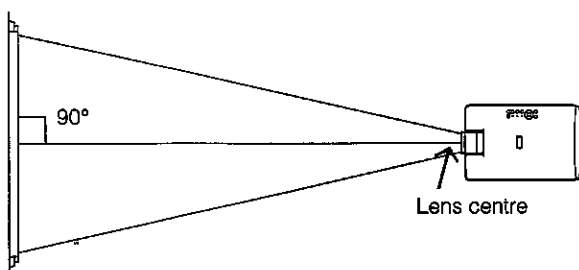
Caution: When setting up the projector

- For minimal servicing and to maintain high image quality, SHARP recommends that this projector be installed in an area free from humidity, dust and cigarette smoke. If the projector is used in these environments, the lens and filter will need to be cleaned (or the filter replaced) more often, and internal cleaning may become necessary. As long as the projector is regularly cleaned, use in these environments will not reduce the overall operation life of the unit. Internal cleaning should only be performed by a Sharp Authorised LCD Projector Dealer.
- Do not expose to extreme heat or cold.
Operating temperature: $+5^{\circ}\text{C}$ to $+40^{\circ}\text{C}$
Storage temperature: -20°C to $+60^{\circ}\text{C}$
- Do not tilt the projector more than 10° .

- Position the screen so that it is not in direct sunlight or room light. Light falling directly onto the screen washes out colours, making viewing difficult. Close the curtains and dim the lights when using the screen in a bright or sunny room.
- The best picture will be obtained when the projector is at a 90° degree angle to the screen. Position the projector and screen as shown.

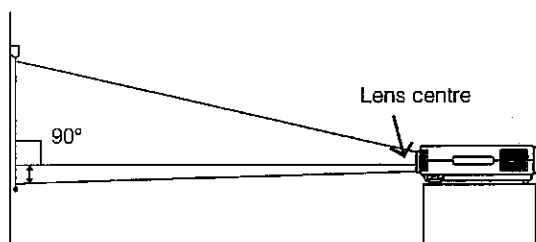
Example of a standard setup

TOP VIEW



The projector lens should be centred in the middle of the screen.

SIDE VIEW

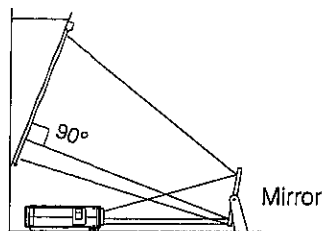


If the projector and screen are not centred properly, the picture will be distorted, making viewing difficult.

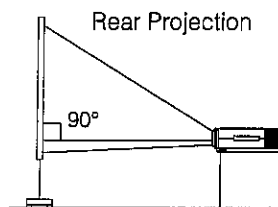
- Using the horizontal reverse function makes the following setups possible.

Example of a reversed image setup

- By placing a mirror (normal flat type) in front of the lens and using the horizontal reverse function, the image reflected from the mirror can be projected onto the screen.
- Rear projection with a rear projection screen is also possible when using the horizontal reverse function.



AUDIENCE SIDE



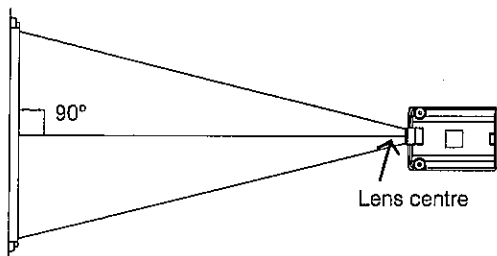
The projector lens should be centred in the middle of the screen.

If the projector and screen are not centred properly, the picture will be distorted, making viewing difficult.

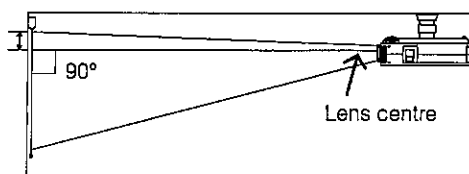
Example of a ceiling-mount setup

Before mounting the projector, be sure to contact your nearest Sharp Authorised LCD Projector Dealer to obtain the manufacturer recommended ceiling mount bracket (sold separately). (AN-NV1T Ceiling Mount Bracket, AN-TK201/AN-TK202 Extension Tube for AN-NV1T).

TOP VIEW



SIDE VIEW



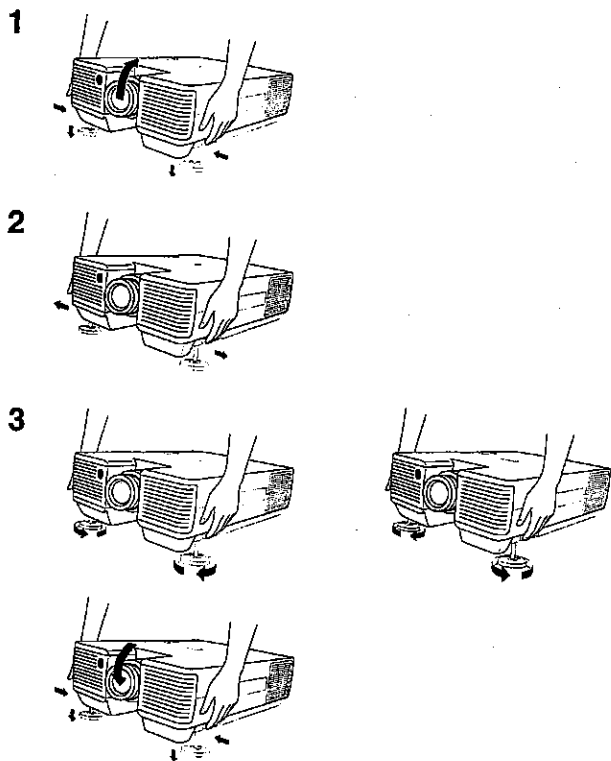
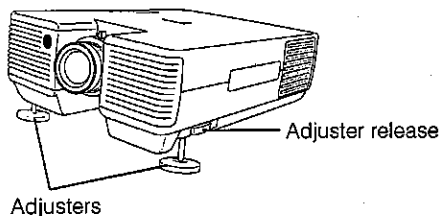
- If the relative positions of the projector and the screen are not properly adjusted, the picture will be distorted.

Note:

- Contact your nearest Sharp Authorised LCD Projector Dealer for inquiries concerning setup.

Adjusting the Height of the Picture

- Use the adjuster release to adjust the angle of the projector and height of the picture. Minor adjustments can be made with the adjusters.



1. Press the adjuster release and lift the projector to the desired angle with both hands.

The adjuster legs will extend to the surface of the table.

2. Remove your hand from the adjuster release.

The adjuster legs will lock in position. Release the projector once you are sure the adjuster legs have locked in position.

3. Make any minor adjustments necessary.

Turn the adjusters to further adjust the angle of the projector.

Returning the projector to its original position

While holding the projector with both hands, press the adjuster release and slowly lower the projector to its original position.

Notes:

- Adjustable up to approximately 5° from the horizontal.
- When adjustments are made with the adjusters, the picture may become distorted, depending on the relative positions of the projector and the screen.
- After adjusting, in some cases, all of the adjuster legs may not be resting on the table. To prevent the projector from wobbling, adjust the adjuster legs so that they firmly contact the table.

Cautions:

- Do not press the adjuster release when the adjuster legs are extended without firmly holding the projector.
- When lowering the projector, be careful not to get your fingers caught in the area between the adjusters and the projector.
- Do not hold the lens when lifting or lowering the projector.

Transporting the Projector

Use the carrying handle when carrying the projector.

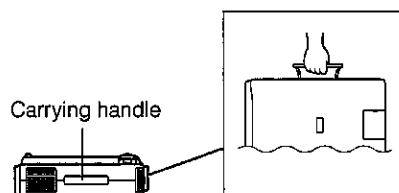
When transporting the projector, press the handle release located on the side of the unit to expose the handle and then carry it by the handle as shown. To close the handle, push it back into the side of the unit.

Note:

- Always put on the lens cap to prevent damage to the lens when transporting the projector.

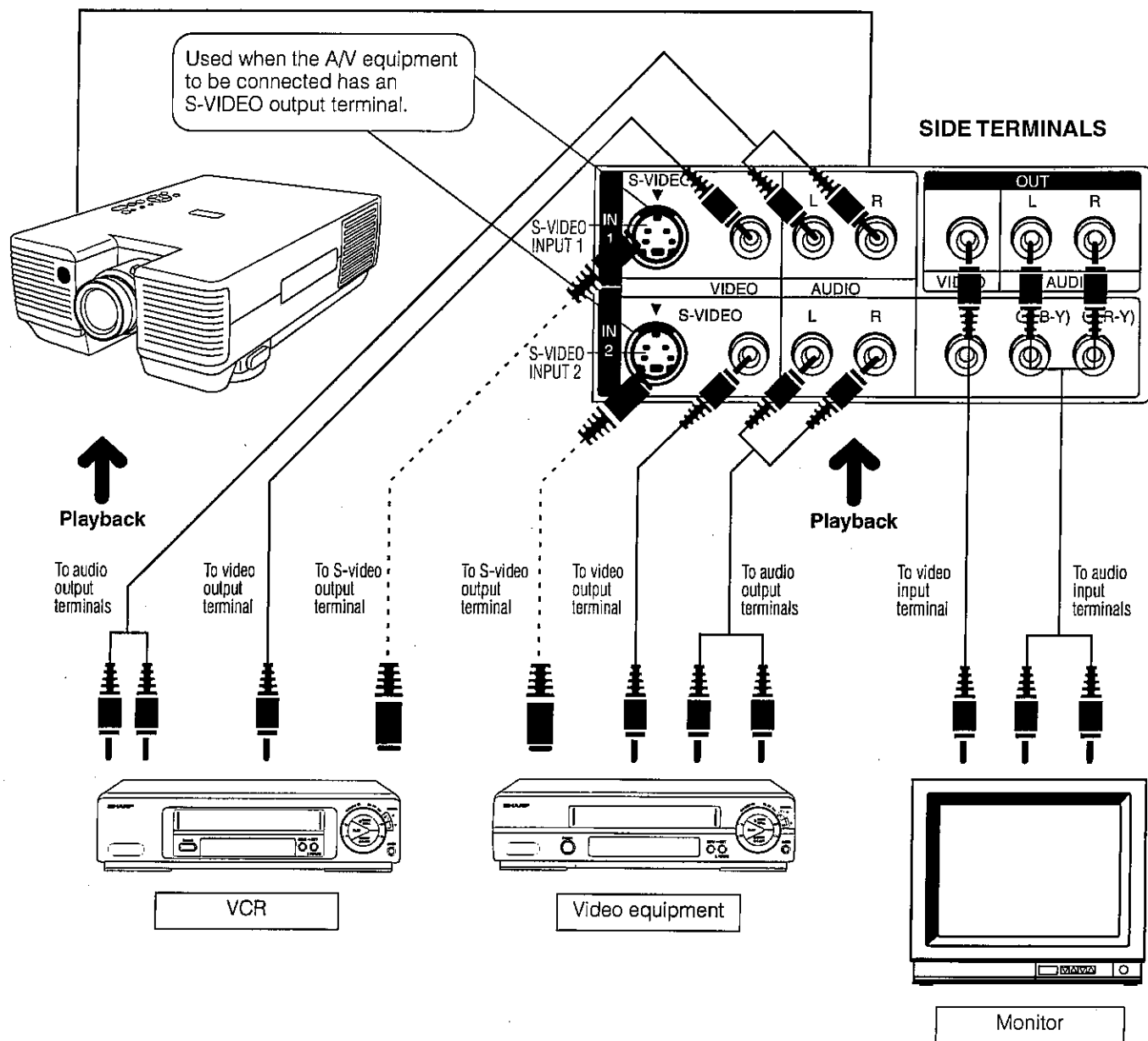
Caution:

- Do not lift or carry the projector by the lens or the lens cover as this may damage the lens.



Connecting the Projector (VIDEO 1, VIDEO 2: Composite/S-Video)

- To watch video playback with the projector connected to audiovisual output equipment, make the following connections.
- Always turn off the LCD Projector while connecting to video equipment, in order to protect both the projector and the equipment being connected.

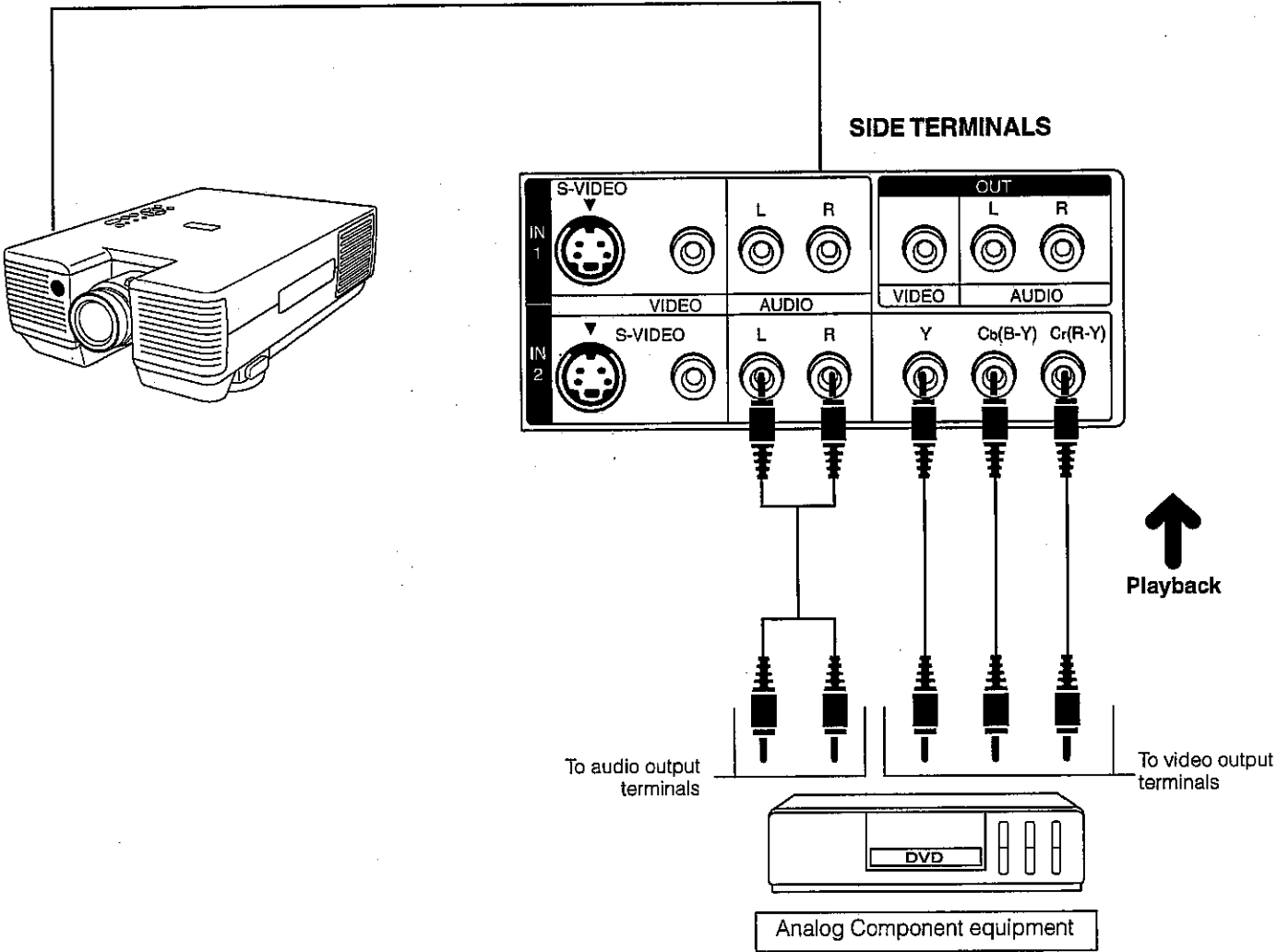


Note the following when using the S-VIDEO INPUT terminal (PAL/NTSC):

- The S-VIDEO INPUT terminal uses a video signal system in which the picture is separated into a colour and a luminance signal to realize a higher-quality picture.
- The S-VIDEO INPUT terminal has priority over the COMPOSITE VIDEO INPUT terminal. Make the audio connection via the COMPOSITE VIDEO INPUT audio terminals (left/right).
- The S-VIDEO INPUT terminal is used when the audiovisual equipment to be connected has an S-VIDEO output terminal.
- Refer to the On-Screen Display in "6. Selecting input" on page 16 when switching to the Composite/ S-video or analog component in VIDEO 2 mode.

Connecting the Projector (VIDEO 2: Analog Component Video)

- To connect the projector to a video source with an analog component video output
- Before connecting, be sure to turn both the projector and the equipment off.
- Connect the Audio (L/R), Y, C_b (B-Y) and C_r (R-Y) cables to the correct input terminals on the projector and the video source.



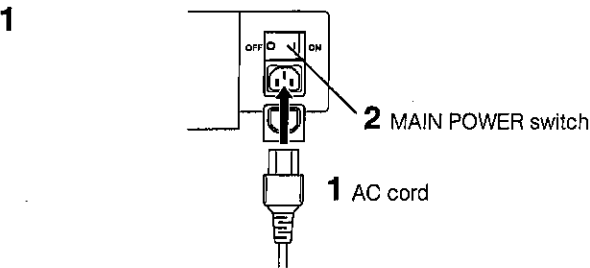
Component Video Input Signal

Type of signal	Signal level
Y (luminance signal)	1 Vp-p, sync negative, 75Ω terminated
C _b (B-Y) (chrominance signal)	0.7 Vp-p, 75Ω terminated
C _r (R-Y) (chrominance signal)	0.7 Vp-p, 75Ω terminated
Audio	0.5 Vrms, more than 22 kΩ (stereo)

Notes:

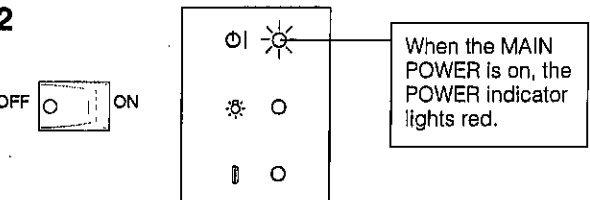
- Video input from analog component equipment cannot be output through the VIDEO OUT terminal on the projector.
- Audio input from analog component equipment can be output through the AUDIO OUT terminals on the projector.
- It is necessary to switch to VIDEO 2 when projecting the analog component input. Refer to the On-Screen Display in "6. Selecting input" on page 16 for details.

Basic Operation of the Projector



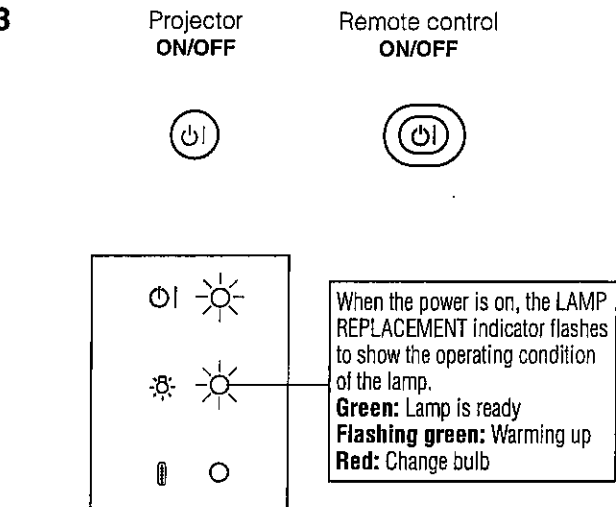
1. Connecting the AC cord

Open the socket cover and connect the supplied AC cord to the socket.



2. Turning on the MAIN POWER

Press the MAIN POWER switch on the side of the projector ON. The POWER indicator lights red and the projector enters STANDBY mode.

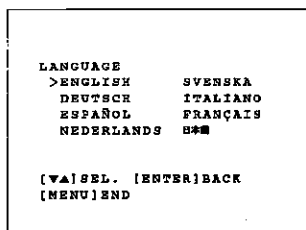


3. Turning on the POWER

- Press the POWER (ON/OFF) button on the projector or the remote control.
- When the power is turned off by pressing the POWER (ON/OFF) button, the POWER indicator will not turn off until the fan has stopped running.
 - See page 22, "Lamp/Maintenance Indicators", for details.

- Notes:**
- When the POWER indicator is not lit, the remote control cannot be used to operate the projector.
 - If the power is turned on immediately after it has been turned off, it may take a short while before the lamp turns on. (During this period the LAMP REPLACEMENT indicator flashes.)
 - After the projector is unpacked and turned on for the first time, a slight odour may be emitted from the exhaust fan. This odour will disappear with use.

On-Screen Display



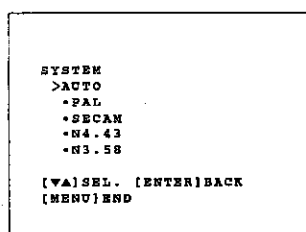
4. ON-SCREEN DISPLAY in 8 languages

The ON-SCREEN DISPLAY is set to English at the factory. The language for the ON-SCREEN DISPLAY can be set to English, German, Spanish, Dutch, Swedish, Italian, French or Japanese.

Setting the ON-SCREEN DISPLAY language

- 1) Press the MENU button. The menu will appear on the screen.
- 2) Press the ADJUSTMENT ▼/▲ buttons until the > mark is set to "LANGUAGE". Press the ENTER button to display the LANGUAGE menu.
- 3) Press the ADJUSTMENT ▼/▲ buttons until the > mark matches the language desired, and then press the MENU button to set the language. The ON-SCREEN DISPLAY is now programmed to display in the language chosen. The display then returns to normal screen.

If the ENTER button is pressed instead of the MENU button in 3), the ON-SCREEN DISPLAY will be programmed with the selected item (ex. language) and then return to the previous display (ex. menu).



5. Changing the system mode

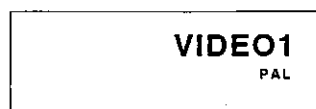
The video input system mode is set to AUTO at the factory, but it can be changed to a different mode if the selected system mode is not compatible with the connected audiovisual equipment (when a colour image appears in black and white, etc.).

- 1) Press the MENU button. The menu will appear on the screen.
- 2) Press the ADJUSTMENT ▼/▲ buttons until the > mark is set to "SYSTEM". Press the ENTER button to display the SYSTEM menu.
- 3) Press the ADJUSTMENT ▼/▲ buttons until the > mark matches the video system desired, and then press the MENU button to set the system.

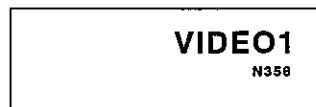
Notes:

- In AUTO mode, "PAL", "SECAM", "N443" or "N358" is displayed on the screen for a few seconds when the mode is changed.
- When the system mode is set to AUTO, you may not receive a clear picture due to signal differences. If this happens, switch to the colour system you are viewing.
- When selecting VIDEO 2 component (See page 16.), the input mode will not be displayed.

PAL



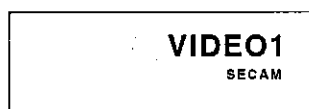
NTSC 3.58



COMPONENT (VIDEO 2)



SECAM

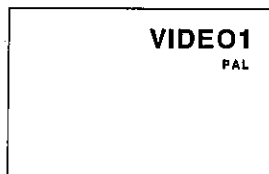


NTSC 4.43

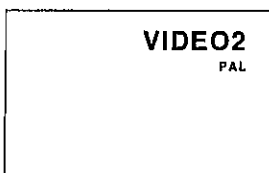


6

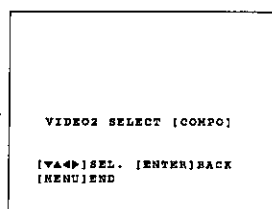
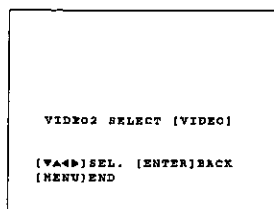
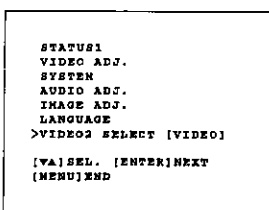
On-Screen Display



To view the picture from a video source connected to: VIDEO INPUT 1 or S-VIDEO INPUT 1



VIDEO INPUT 2, S-VIDEO INPUT 2 or ANALOG COMPONENT INPUT



6. Selecting input

Press the INPUT SELECT button on the projector or the remote control to switch the picture input. The current input mode is displayed for about 4 seconds. If you press the button again while the input mode is displayed, the mode changes as shown on the left.

Selecting the VIDEO 2

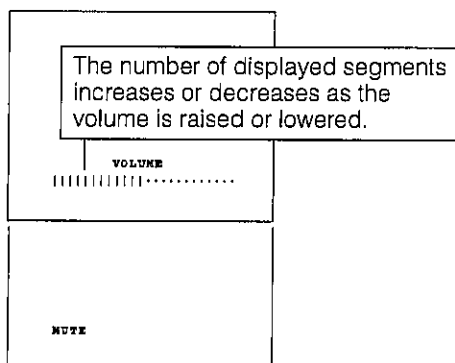
- Switch to either the Composite/S-video or Analog Component Video in VIDEO 2 mode.
- Press the MENU button to display the menu screen and then press the ADJUSTMENT ▼/▲ buttons to select "VIDEO2 SELECT (VIDEO)" and press the ENTER button.

- While the VIDEO 2 SELECT screen is displayed, press the ADJUSTMENT ▼/▲ buttons on the remote control or the ADJUSTMENT ◀/▶, ▼/▲ buttons on the projector to select the desired VIDEO 2 setting and press the MENU button.

Description of VIDEO 2 SELECT Items

VIDEO	When projecting S-VIDEO INPUT 2 or COMPOSITE VIDEO INPUT 2. (The S-VIDEO INPUT 2 has the priority over the COMPOSITE VIDEO INPUT 2.)
COMPO	When projecting ANALOG COMPONENT VIDEO INPUT.

7



The number of displayed segments increases or decreases as the volume is raised or lowered.

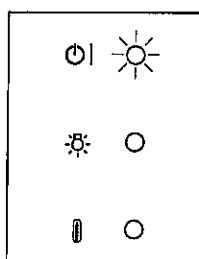
7. Adjusting the volume

Press the Volume Up-Down buttons on the projector or the remote control to adjust the volume.

MUTE

- Press the MUTE button on the projector or the remote control to temporarily turn off the sound.
- Press the button once again to turn the sound back on.

8



8. Turning off the power

The power can be temporarily turned off by pressing the POWER (ON/OFF) button on either the projector or remote control.

After the POWER indicator lights red and the cooling fans run for 90 seconds, the power will turn off, and the projector will return to STANDBY mode.

The power can be turned on again either from the projector or remote control. When the power is turned on, the POWER indicator and LAMP REPLACEMENT indicator light green.

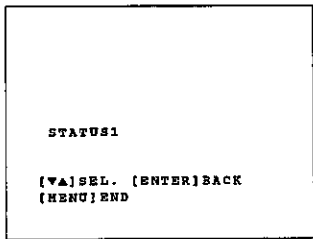
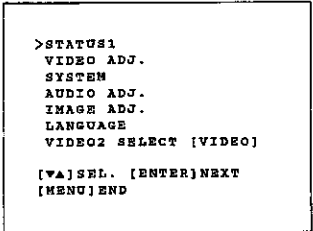
Note:

- When the MAIN POWER is off on the projector set, the power cannot be turned on from the remote control.

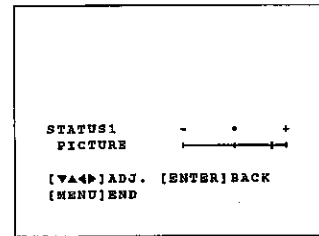
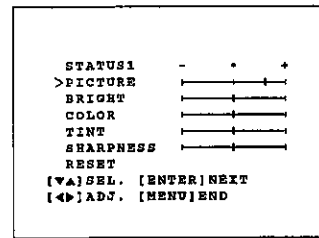
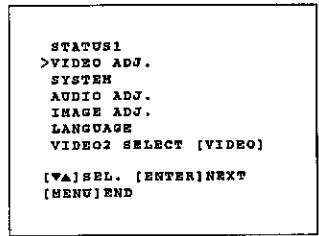
Adjusting the Picture

1

On-Screen Display



2



- This projector's picture is factory preset to standard settings. However, you can adjust it to suit your own preferences with the ADJUSTMENT buttons on the projector or the remote control.
- Five picture modes can be adjusted: "PICTURE", "BRIGHT", "COLOR", "TINT" and "SHARPNESS".

Note:

- TINT only appears in NTSC mode.

1. Selecting the mode to be adjusted

- When the MENU button is pressed, the MENU mode is indicated for about 30 seconds. Press the ADJUSTMENT ▼/▲ buttons to select "STATUS1", then press the ENTER button.

- Press the ADJUSTMENT ▼/▲ buttons to select the STATUS 1-3 setting, and then press the MENU button.

2. Adjusting the picture

- When the MENU button is pressed, the MENU mode is indicated for about 30 seconds.
- Press the ADJUSTMENT ▼/▲ buttons to select "VIDEO ADJ.", then press the ENTER button.
- Press the ADJUSTMENT ▼/▲ buttons to select the item to be adjusted, and press the ENTER button.

Note:

- If STATUS is selected and the ENTER button pressed, the display returns to the menu.

On the screen shown on the left, the following adjustments can be made using the ADJUSTMENT buttons on the projector (not with the remote control).

- Press the ADJUSTMENT ▼/▲ buttons to select the item to be adjusted.
- Press the ADJUSTMENT ◀/▶ buttons to move the ● mark of the selected adjustment item to the desired setting.

- Press the ADJUSTMENT ▼/▲ buttons on the remote control or the ADJUSTMENT ◀/▶, ▼/▲ buttons on the projector to move the ● mark, which indicates the adjustment setting.
- Press the ENTER button to adjust other items.
- The adjustment mode is indicated for about 10 seconds.

Description of Adjustment Items

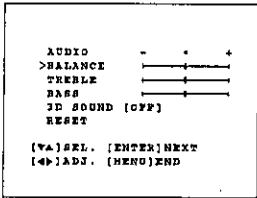
Selected item	ADJUSTMENT ◀ or ▼ button	ADJUSTMENT ▶ or ▲ button
PICTURE	To decrease contrast	To increase contrast
BRIGHT	For less brightness	For more brightness
COLOR	For less colour intensity	For more colour intensity
TINT	Skin tones become purplish	Skin tones become greenish
SHARPNESS	For less sharpness	For more sharpness
RESET	All Video Adjustment items are returned to the factory preset settings. Note: To reset all adjustment items, select RESET in "VIDEO ADJ." mode and press the ENTER button.	

3. Press the MENU button anytime to exit VIDEO ADJ.

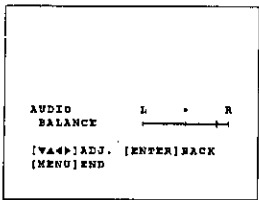
Adjusting the Audio

1

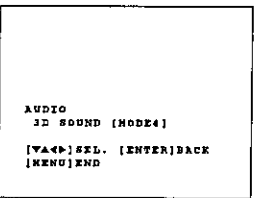
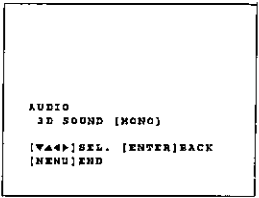
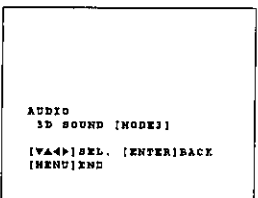
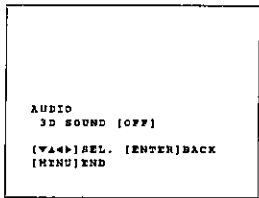
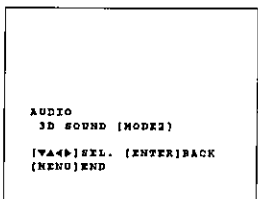
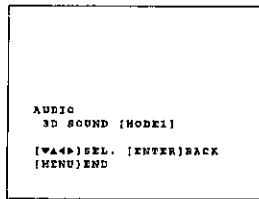
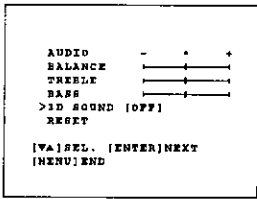
On-Screen Display



SRS 3-D SOUND (OFF)



2



- The projector's audio is factory preset to standard setting. However, you can adjust it to suit your own preference with the ADJUSTMENT buttons on the projector or the remote control.
- You can adjust the BALANCE, TREBLE and BASS, and also select the SRS 3-D SOUND mode.

- To return to the factory preset mode, press the ADJUSTMENT ▼/▲ buttons to select "RESET", then press the ENTER button.
- Press the MENU button to select the normal screen mode.

1. Adjusting the Balance, Treble and Bass

- Press the MENU button. Select "AUDIO ADJ." with the ADJUSTMENT ▼/▲ buttons. Then press the ENTER button to display the AUDIO setting screen.
- Select "BALANCE," "TREBLE" or "BASS" with the ADJUSTMENT ▼/▲ buttons and press the ENTER button.

On the screen shown on the left, the following adjustments can be made using the ADJUSTMENT buttons on the projector (not with the remote control).

- Press the ADJUSTMENT ▼/▲ buttons to select the item to be adjusted.
- Press the ADJUSTMENT ◀▶ buttons to move the ● mark of the selected adjustment item to the desired setting.
- Press the ADJUSTMENT ▼/▲ buttons on the remote control or the ADJUSTMENT ◀▶, ▼/▲ buttons on the projector to move the ● mark, which indicates the adjustment setting.
- Press the ENTER button to make other adjustments.
- To return to the factory preset mode, press the ADJUSTMENT ▼/▲ buttons to select RESET, then press the ENTER button.

Note: When the SRS 3-D SOUND is turned on, the balance is reset.

Description of Adjustment Items

Selected items	ADJUSTMENT ◀ or ▼ button	ADJUSTMENT ▶ or ▲ button
BALANCE	Increased audio from the left speaker	Increased audio from the right speaker
TREBLE	Weaker treble	Stronger treble
BASS	Weaker bass	Stronger bass

2. Selecting and Adjusting the SRS 3-D SOUND Mode

- The Sound Retrieval System is a sound system that recreates the effect of three dimensional acoustics. This allows you to enjoy dynamic sound with a feeling of both width and depth.

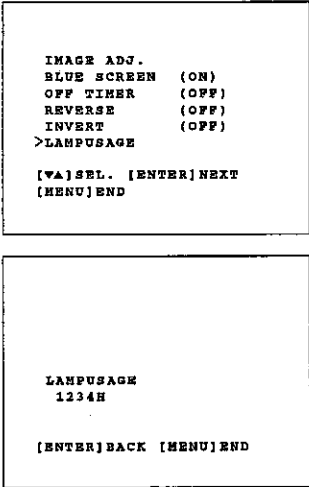
- Press the MENU button. Select "AUDIO ADJ." with the ADJUSTMENT ▼/▲ buttons to display the AUDIO setting screen.
- Press the ADJUSTMENT ▼/▲ buttons to select "3-D SOUND (OFF)", and press the ENTER button.
- Press the ADJUSTMENT ▼/▲ buttons on the remote control or the ADJUSTMENT ◀▶, ▼/▲ buttons on the projector to select the desired 3-D sound mode, and press the MENU button.

Description of Adjustment Items

Mode 1	Sound image that produces an intimate soundfield as in a medium-sized hall.
Mode 2	Maximum soundfield as music comes out beyond the speakers .
Mode 3	Great for live recording and vocal music.
Mode 4	This setting greatly increases the amount of vocals or centre sounds in a recording.
Mono	3-D stereo sound from a monaural sound source.

Functions on the Projector

On-Screen Display

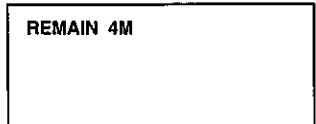
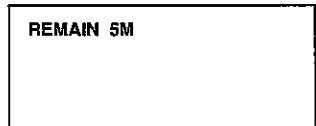
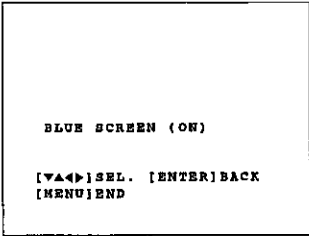


Checking the Lamp Usage Time

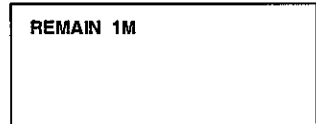
- The lamp usage time can be checked with the On-Screen display.
- Press the MENU button. While the MENU screen is displayed, press the ADJUSTMENT ▼/▲ buttons to select "IMAGE ADJ." Then press the ENTER button to display the IMAGE ADJ. screen as shown. Press the ADJUSTMENT ▼/▲ buttons to select "LAMPUSAGE", and then press the ENTER button to check the lamp usage time on the screen.

Using the Blue Screen Function

- This projector is equipped with a Blue Screen function that will turn the screen blue when the video input terminal is not connected to anything, or the video component is turned off.
- Press the MENU button. While the MENU screen is displayed, press the ADJUSTMENT ▼/▲ buttons to select "IMAGE ADJ." Then press the ENTER button to display the IMAGE ADJ. screen. Press the ADJUSTMENT ▼/▲ buttons to select "BLUE SCREEN". When the BLUE SCREEN setting screen appears, press the ADJUSTMENT ▼/▲ buttons on the remote control or the ADJUSTMENT ◀/▶, ▼/▲ buttons on the projector to select ON or OFF, and then press the MENU button.
- When the Blue Screen function is on, the screen will turn blue when no video signal is being input through the video input terminal.
- When the Blue Screen function is on, and no video signal is input via the input terminal for more than 15 minutes, the power is automatically turned off.



•
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- The remaining time before the unit is switched to standby is shown in the top left of the screen, as shown in the diagram. This will appear when there are 5 minutes remaining, then at 1 minute intervals until the unit enters to STANDBY mode.

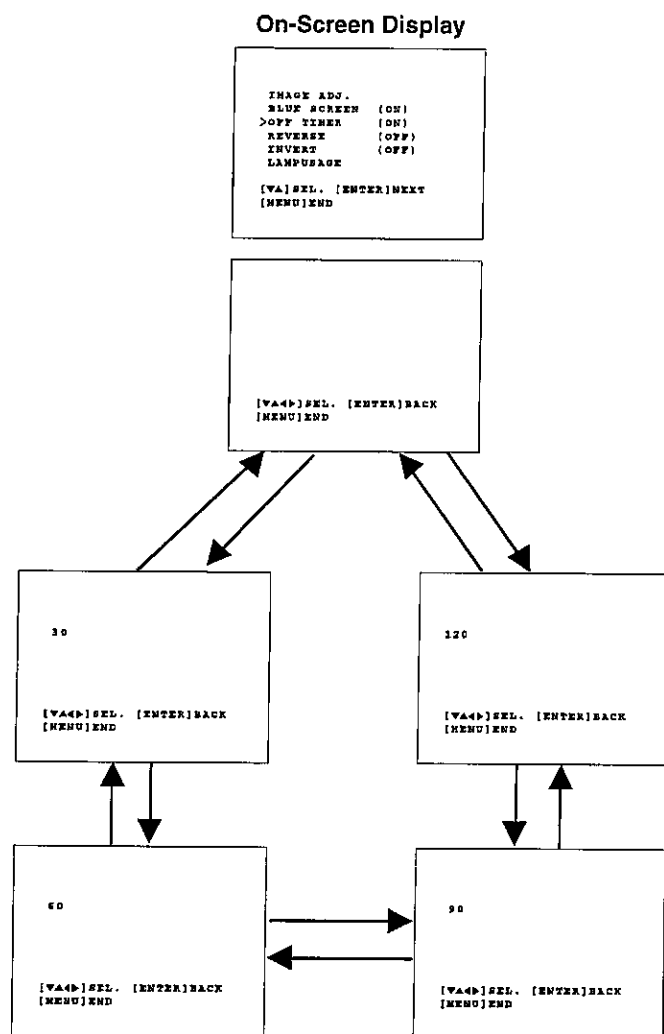
Notes:

- When the power is turned off, the POWER indicator will light red.
- To turn the power on again, press the POWER (ON/OFF) button to set it to OFF, then press it again to set it to ON.

Using the Off Timer

■ This projector is equipped with an Off Timer to automatically turn off the power after a certain amount of time. You can use this convenient function before going to sleep.

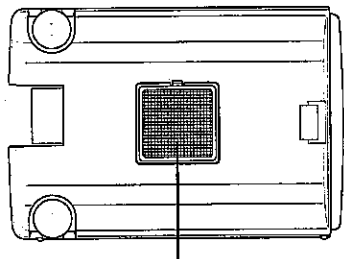
- Press the MENU button. While the MENU screen is displayed, press the ADJUSTMENT $\nabla/\blacktriangle$ buttons to select "OFF TIMER", and then press the ENTER button.
- Press the ADJUSTMENT $\nabla/\blacktriangle$ buttons on the remote control or the ADJUSTMENT $\blacktriangle/\blacktriangleright$, $\nabla/\blacktriangle$ buttons on the projector to select the desired Off Timer setting, and then press the MENU button.
- If the power on the projector is turned off, the Off Timer setting is cancelled.



Air Filter Maintenance

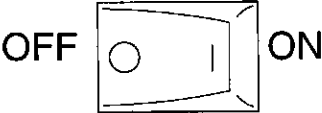
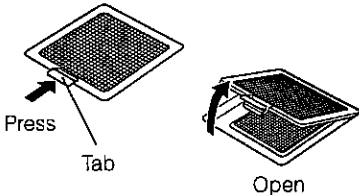
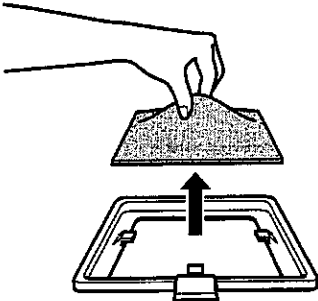
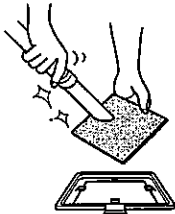
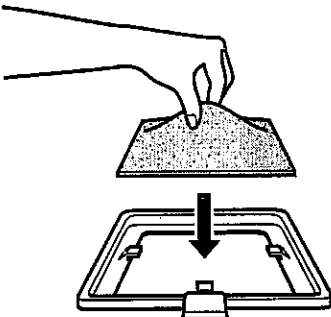
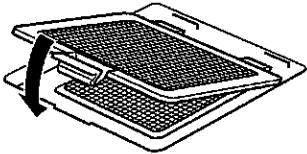
- The air filter should be cleaned every 100 hours of use. Clean the filter more often when the projector is used in a dusty or smoky location.
- Have your nearest Sharp Authorised LCD Projector Dealer or Service Centre replace the filter (PFILD0067CEZZ) when it is no longer possible to clean it.

BOTTOM VIEW



AIR FILTER unit

Cleaning and Replacing the Filter

1 Press the MAIN POWER switch OFF.  Power indicator goes off. Then unplug the power cord.	2 Remove the FILTER COVER. Press the tab on the air filter cover and pull straight out. 	3 Remove the AIR FILTER. Grasp the air filter between your fingers and lift it out of the filter cover. 
4 Clean the AIR FILTER. Clean the dust off the air filter and cover with a vacuum cleaner.  If the filter is very dirty, wash with a water-diluted neutral detergent. Allow the filter to dry completely before proceeding to Step 5.	5 Replace the AIR FILTER. Place the filter underneath the tabs on the filter frame. Return the air filter to its original position in the filter cover. 	6 Replace the FILTER COVER. Insert the two tabs on the end of the filter cover into the filter cover opening and press the filter cover into position. 

- Note:**
- Be sure the AIR FILTER COVER is securely installed. The power cannot be turned on unless it is correctly installed.

Lamp/Maintenance Indicators

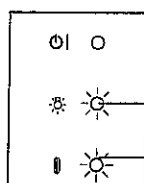
Lamp

- The lamp has a finite operating life of 2,000 hours. The lamp life may differ, however, depending on the usage environment.
- When the lamp is nearing the end of its operating life, the picture and colour quality will deteriorate. When the projector is turned on after the lamp has been in use for more than 1,900 hours, the LAMP REPLACEMENT indicator will light red and "LAMP" will flash in yellow on the screen to alert you that it is time to replace the lamp. At this point, take your projector to the nearest Sharp Authorised LCD Projector Dealer or Service Centre to have the lamp replaced.

Caution: Once you are alerted that the lamp requires replacement, take your projector to the nearest Sharp Authorised LCD Projector Dealer or Service Centre to have the lamp replaced.

- When the number of hours the lamp has been used reaches 2,000, the power automatically turns off and the projector enters STANDBY mode. If you turn on the power after the lamp has been used for 2,000 hours, "LAMP" will flash on screen in red letters for five minutes and then the power will turn off.
- Intense light hazard. Do not attempt to look into the aperture and lens while the projector is operating.

Maintenance Indicators



LAMP
REPLACEMENT
indicator
TEMPERATURE
WARNING
indicator

- The warning lights on the projector indicate problems inside the projector.
- There are two warning lights — a TEMPERATURE WARNING indicator which warns that the projector is too hot, and a LAMP REPLACEMENT indicator which lets you know when to change the bulb.
- If a problem occurs, either the TEMPERATURE WARNING indicator or the LAMP REPLACEMENT indicator will light up red, and the power will shut off. After turning off the power, follow the procedures given below.

Warning Indicator	Symptom	Problem	Possible Solution
TEMPERATURE WARNING indicator	The internal temperature is abnormally high.	• Blocked air intake.	• Relocate projector to a proper location.
		• Clogged air filter.	• Clean the filter. (See page 21.)
		• Cooling fan breakdown. • Internal circuit failure.	• Take the projector to your nearest Sharp Authorised LCD Projector Dealer or Service Centre.
LAMP REPLACEMENT indicator	The lamp does not light up.	• Burnt-out lamp.	• Take the projector to your nearest Sharp Authorised LCD Projector Dealer or Service Centre.
		• Lamp circuit failure.	
	The lamp requires replacement.	• The lamp has been used for over 1,900 hours.	

Notes:

- If the TEMPERATURE WARNING indicator light comes on, after servicing, please wait until the projector has cooled down completely before turning the power back on. (At least 5 minutes.)
- When the power is turned off and then turned on again, as during a brief rest, the LAMP REPLACEMENT indicator may be triggered, preventing the power from going on. When this happens, take the power plug out of the AC socket and put it back in again.

Before Calling for Service

Problem	Check
No picture and no sound.	• Projector power cord is not plugged into the AC wall socket. • MAIN POWER switch is set to OFF. • Cables improperly connected to side panel of the projector. (See pages 12 and 13.) • Remote control batteries have run down. (See page 5.) • Lamp has reached the end of its operating life. (See page 22.)
Sound is heard but no picture appears.	• Cables improperly connected to side panel of the projector. (See pages 12 and 13.) • BRIGHT and PICTURE adjustments are set to minimum position. (See page 17.) • Check that the VIDEO 2 input switching is correct. (See page 13.)
Colour is faded or poor.	• Check that the COLOR and TINT adjustments are correct. (See page 17.)
Picture is blurred.	• Adjust the focus. (See page 6.) • Projection distance is too long or too short to allow for proper focus. (See page 7.)
Picture appears but no sound is heard.	• Cables improperly connected to side panel of the projector. (See pages 12 and 13.) • Volume is set to minimum. (See page 16.)
An unusual sound is occasionally heard from the cabinet.	• If the picture is normal, the sound is due to cabinet shrinkage caused by temperature changes. This will not affect operation or performance.
Maintenance indicator lights up.	• Refer to "Lamp/Maintenance Indicators" on page 22.

Specifications

Product Type		LCD Projector
Model		XV-Z1E
Video system		PAL/SECAM/NTSC 3.58/NTSC 4.43
Display method		LCD panel × 3, RGB optical shutter method
LCD panel	Panel size	3.3 cm (1.3") (20.0 (H) × 26.7 (W) mm)
	Display method	Translucent TN liquid crystal panels
	Drive method	TFT (Thin Film Transistor) Active Matrix panels
	No. of pixels	311,696 dots (484 (V) × 644 (H))
Lens		F2.5 to 3.6, f = 47 to 76 mm
Projection lamp		240 W Metal halide
Contrast ratio		100:1
Video input signal		RCA Connector: VIDEO, composite video, 1.0 Vp-p, sync negative, 75 Ω terminated RCA Connector: AUDIO, 0.5 Vrms, more than 22 kΩ
S-video input signal		4-pin mini DIN connector Y (luminance signal): 1.0 Vp-p, sync negative, 75 Ω terminated C (chrominance signal): burst 0.286 Vp-p, 75 Ω terminated
Video (monitor) output signal		RCA Connector: VIDEO, composite video, 1.0 Vp-p, sync negative, 75 Ω terminated RCA Connector: AUDIO, 0.5 Vrms, less than 2.2 kΩ
Component video input signal		RCA Connector: Y (luminance signal): 1.0 Vp-p, sync negative, 75 Ω terminated Cb (B-Y) (chrominance signal): 0.7 Vp-p, 75 Ω terminated Cr (R-Y) (chrominance signal): 0.7 Vp-p, 75 Ω terminated RCA Connector: AUDIO 0.5 Vrms, more than 22 kΩ (stereo)
Horizontal resolution		480 TV lines (video input)
Audio output		3 W + 3 W (stereo)
Speaker system		3" (8 cm) round × 2
Rated voltage		AC 200–240V
Rated frequency		50/60 Hz
Power consumption		340 W
Standby consumption		4 W
Operating temperature		+5°C to +40°C
Storage temperature		–20°C to +60°C
Cabinet		Plastic
Dimensions (W × D × H)		264 × 388 × 120 mm
Weight		7.5 kg
Supplied accessories		Remote control unit, two AAA batteries, lens cover (installed), extra air filter (installed), AC cord, AV cable, 21 pin RCA conversion adaptor (Europe only)
Replacement parts		Remote control unit (RRMCG1412CESA), air filter (PFILD0067CEZZ), AC cord, AV cable (QCNW-3740CEZZ), 21 pin RCA conversion adaptor (Europe only)

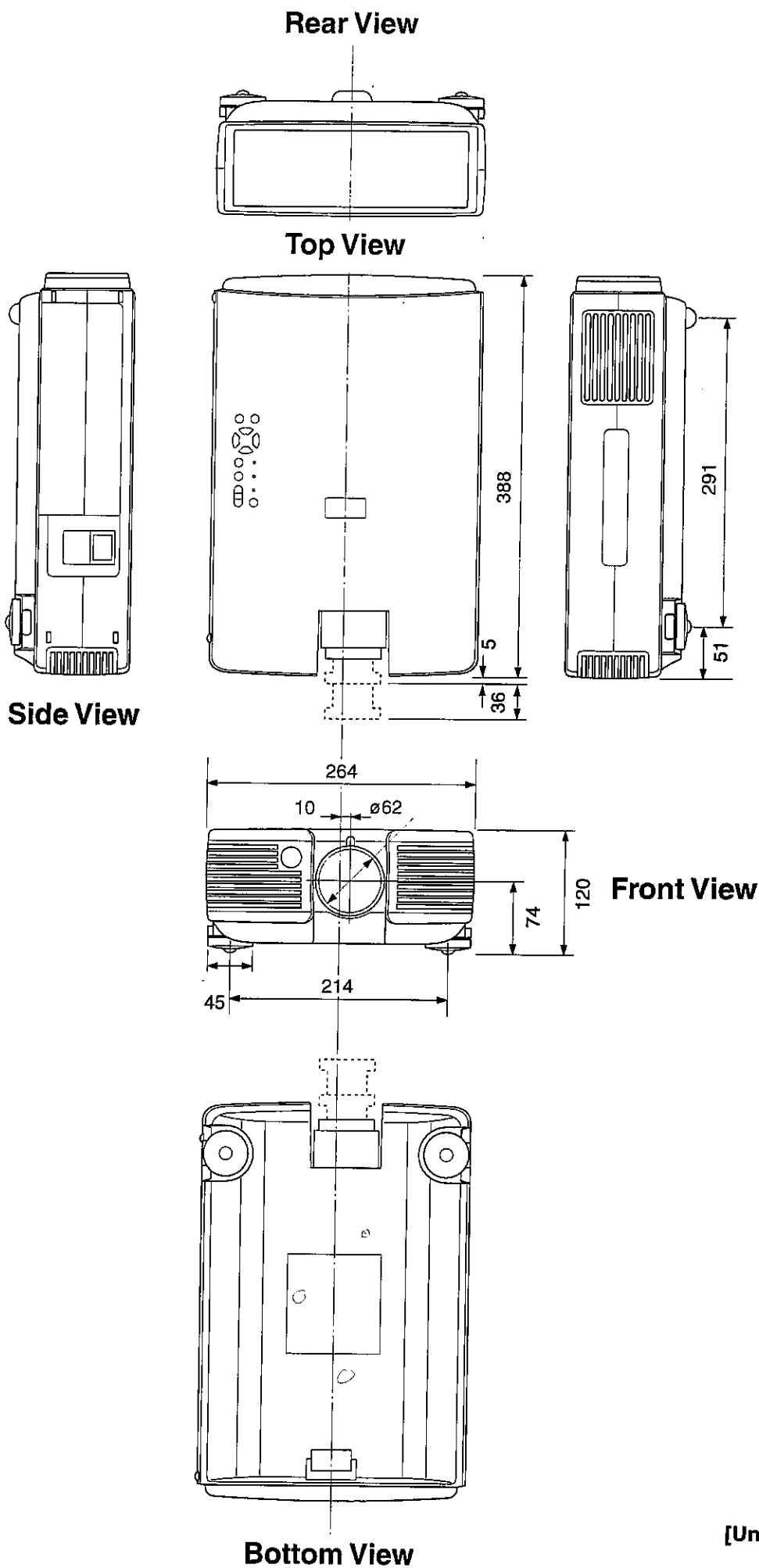
Our projector uses LCD (Liquid Crystal Display) panels. These very sophisticated panels contain 311,696 dots (× RGB) TFTs. (Thin Film Transistors). As with any high technology electronic equipment such as large screen TVs, video systems and/or video cameras, there are certain acceptable tolerances that the equipment must conform to.

This unit has some inactive TFTs within acceptable tolerances, which may result in illuminated dots on the picture screen.

This will not affect the picture quality or the life expectancy of the unit.

*Specifications are subject to change without notice.

Dimensions



[Units: mm]

Sehr geehrter SHARP-Kunde!

Herzlich willkommen in der SHARP-Familie! Wir bedanken uns für den Kauf des Farb-LCD-Projektors von SHARP – ein Gerät von hervorragender Qualität, Zuverlässigkeit und Leistung.

Jeder Farb-LCD-Projektor von SHARP ist auf das beste Farbbild abgestimmt und entspricht unseren strengen Qualitätskontrollen. Diese BEDIENUNGSANLEITUNG ist für die Einstellung des Bildes und der Farbe auf die persönlichen Wünsche vorgesehen. Wir hoffen, daß Sie mit dem Farb-LCD-Projektor von SHARP in den kommenden Jahren vollkommen zufrieden sein werden.

Bitte lesen Sie diese Bedienungsanleitung sorgfältig durch und bewahren sie als Referenz auf.

WICHTIG

Um bei Diebstahl oder Verlust dieses Farb-LCD-Projektors eine Meldung zu vereinfachen, sollte die auf der Unterseite des Gerätes angebrachte Serien- und Modellnummer hier eingetragen und diese Information an einem sicheren Ort aufbewahrt werden.

Die Modellnummer, Angabe der Betriebsspannung und die Warn-Aufkleber befinden sich auf der Unterseite des Gerätes.

Modell-Nr.: XV-Z1E

Serien-Nr.:

Vor dem Wegwerfen der Verpackung sicherstellen, daß der Inhalt auf die Gegenstände überprüft wurde, die in der Liste des „Mitgelieferten Zubehörs“ auf Seite 23 der Bedienungsanleitung aufgeführt sind.

Wichtige Informationen

WARNUNG:

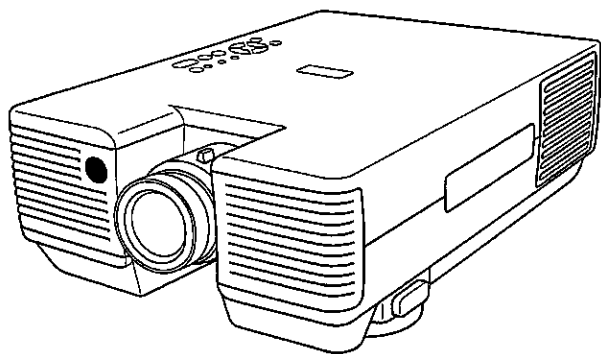
DAS GERÄT IST MIT EINER STARKEN LICHTQUELLE AUSGESTATTET. NIEMALS DIREKT IN DEN LICHTSTRAHL SCHAUEN.

BESONDERS DARAUF ACHTEN, DASS KINDER NICHT DIREKT IN DEN LICHTSTRAHL SCHAUEN.

WARNUNG: ZUR VERRINGERUNG DER GEFAHR VON FEUER ODER ELEKTRISCHEM SCHLAG SOLLTE DIESES GERÄT NICHT FLÜSSIGKEITEN AUSGESETZT WERDEN.

VORSICHT: ZUR VERRINGERUNG DER GEFAHR VON ELEKTRISCHEM SCHLAG NICHT DAS GEHÄUSE ENTFERNEN. IM INNEREN DES GERÄTES BEFINDEN SICH KEINE VOM BENUTZER ZU WARTENDEN BAUTEILE. WARTUNGSARBEITEN SOLLTEN NUR VOM KUNDENDIENST DURCHGEFÜHRT WERDEN.

Besondere Merkmale



Erlaubt die einfache Projektion von farbigen Videobildern auf große Bildwände.

- Direkte Projektion auf einen Bildschirm oder eine weiße Wand.
- Leichtes, konvergenzfreies System zur einfachen Installation.

FLEXIBLE VERWENDUNG

- Zusätzlich zur Standardprojektions-Betriebsart kann das Bild mit Hilfe der Menü-Funktionen sofort für Rückwand-Projektion umgekehrt oder für Deckenmontage invertiert werden.
- Die Bildwandgröße kann von 102 cm (40 Zoll) bis 762 cm (300 Zoll) eingestellt werden.

HOHE BILDQUALITÄT

Jedes der drei LCD-Panels enthält 311.696 Bildpunkte für ein unübertroffen helles Videobild von hoher Qualität mit bis zu 480 doppelten Fernsehzeilen Auflösung.

Y/C DIGITALER KAMMFILTER

Bietet hochqualitative Videobilder mit minimalem Punkt-Crawl-Effekt und Farbrausch-Übersprechung.

VIDEOEINGANG FÜR ANALOGE KOMPONENTEN

Nutzt ein Farbdifferenzsignal (Y, C_b (B-Y), C_r (R-Y)). Das Videosignal wird als getrennte Komponente eingegeben und bietet dadurch eine hervorragende Farb- und Bildqualität.

EINGEBAUTE STEREO LAUTSPRECHER MIT SRS-SCHALTUNGSTECHNIK

Eingebaute 3 W + 3 W Stereo-Verstärker und -Lautsprecher verfügen über SRS-Schaltungstechnik, um eindrucksvolle SRS 3D-Töne zu erzeugen.

- (1) SRS, das SRS-Symbol „(●)“ und das „Sound Retrieval System“ (=Tonabrufsystem) sind eingetragene Warenzeichen von SRS Labs, Inc. in den USA und anderen ausgewählten Ländern.
- (2) „Sound Retrieval System“ (SRS)-Technologie wird unter Lizenz von SRS Labs, Inc. hergestellt.
- (3) „Sound Retrieval System“ (SRS)-Technologie ist in den USA gemäß den Patenten 4.748.669 und 4.841.572 und weltweit gemäß weiteren Patenten geschützt.